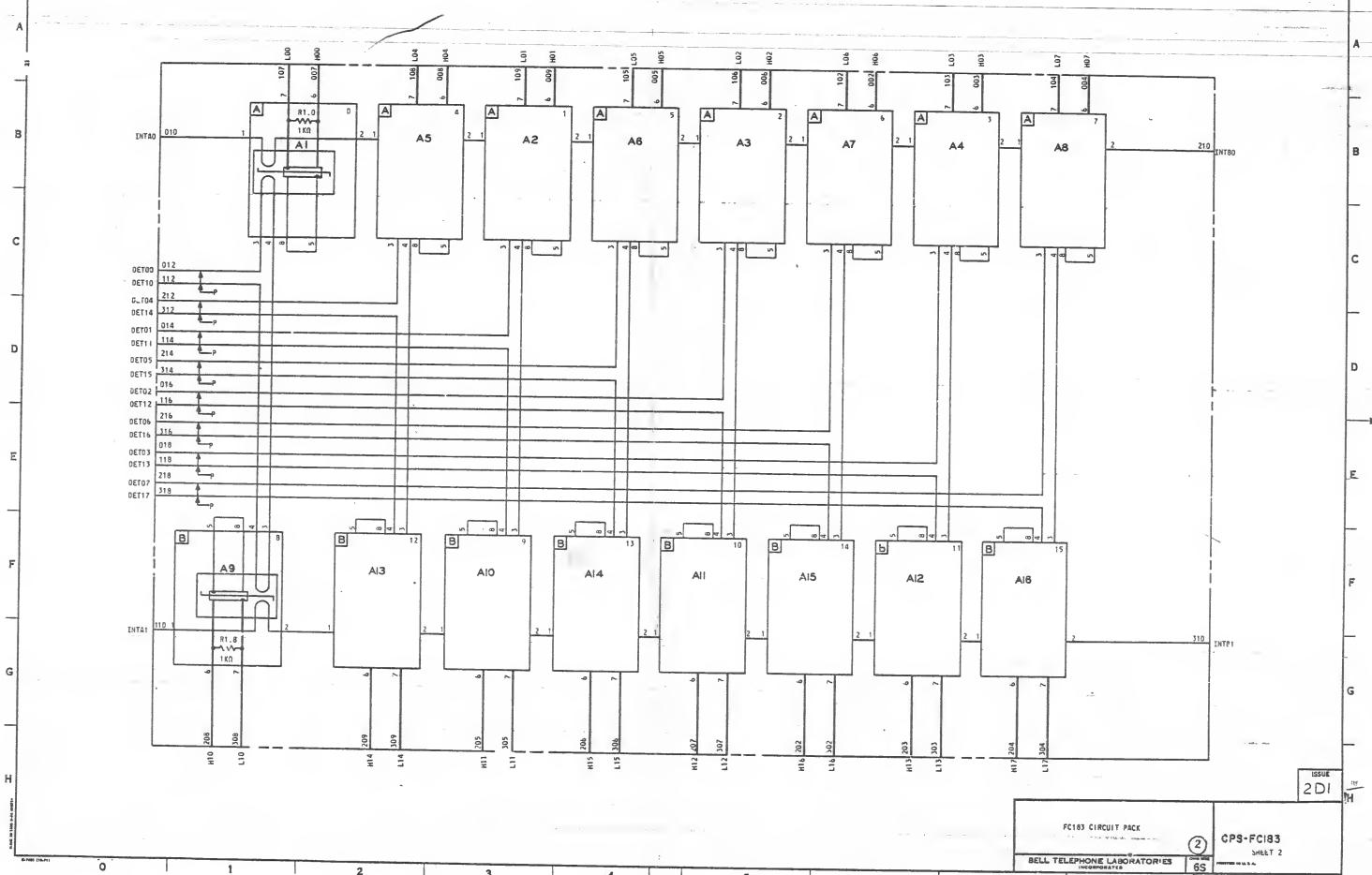
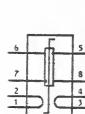


TRUNK FERRODS CIRCUIT



COMPONENT LIST

FERROO SENSOR



DESIG	LOC	CODE
A1	281	
A2	283	
A3	284	
A4	286	
		2C
A5	282	
A6	284	
A7	285	
A8	287	
A9	2F0	
A10	2F2	
A11	2F4	
A12	2F6	
A13	2F2	
A14	2F3	
A15	2F5	
A16	2F7	

RESISTORS

DESIG	CODE
[16] R1.0 - R1.15	KS-20616L1A, 1KΩ

CIRCUIT DESCRIPTION

PURPOSE OF CIRCUIT

THIS CIRCUIT PROVIDES 16 FERRO SCAN POINT ELEMENTS WHICH ARE READ FROM THE INTERROGATE WINDINGS.

THE FC183 FERROO CIRCUIT PACK HAS 16 FERROO (TYPE RC) MOUNTED TO FORM A 2-BY-8 MATRIX. THE INTERROGATE WINDINGS OF THE (100V) FERROO WHICH FORM A HALF ROW ARE CONNECTED IN SERIES AND THE READOUT WINDINGS OF THE FERROO WHICH IS CONNECTED IN SERIES WITH THE READOUT WINDINGS OF THE CORRESPONDING FERROO IN THE HALF ROW. ALL CONTROL WINDINGS OF THE FERROO IN THE FC183 FERROO PACK ARE ARRANGED IN A LOOP CONFIGURATION.

IN THE LOOP CONFIGURATION, THE CONTROL WINDINGS ARE CONNECTED IN A SERIES ACROSS LOOP 2A. THIS CIRCUIT IS FOR THE INTERROGATE AND READOUT TO SATURATE THE FERROO. THE CONTROL WINDINGS MUST BE SATURATED. THE CONTROL CURRENT IN THE CONTROL WINDINGS MUST BE PROVIDED BY THE USING CIRCUIT.

A 1000 OHM RESISTOR IS PROVIDED IN PARALLEL WITH THE CONTROL WINDINGS OF EACH FERROO TO LIMIT THE VOLTAGE SURGE WHEN THE CURRENT TO THE CONTROL WINDINGS IS INTERRUPTED.

FUNCTIONAL DESCRIPTION

THE FERROO IS THE BASIC SCANNING ELEMENT OF A SCANNER. IT CAN BE CONSIDERED AS A COUPLED TRANSFORMER WHOSE COUPLING (THE ABILITY TO INDUCE A SIGNAL FROM A PRIMARY WINDING) IS DETERMINED BY THE AMOUNT OF CURRENT IN THE PRIMARY WINDING AND THE AMOUNT OF CURRENT IN THE CONTROL WINDINGS. THE PRIMARY AND SECONDARY WINDINGS OF THE TRANSFORMER ARE ASSOCIATED WITH THE INTERROGATE AND READOUT WINDINGS, RESPECTIVELY.

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